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ABSTRACT

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Abstract

It is proposed that federal block grants to Illinois be distributed to school districts according to four characteristics of those districts. Funds will be distributed inversely proportional to property valuation per pupil, directly proportional to percentage of minority children, directly proportional to percentage of poverty children (Title I eligibles), and indirectly proportional to number of children per square mile. A statistical system of weighting is provided to allocate the available pool of federal block grant funds between these four selected district characteristics. The system is based upon the relative power of these four factors to predict operating expenditure per pupil. A computer simulation of the proposed grant was accomplished and some aspects of the impact of the proposed grant are explored. Finally, a short summary outlines both the strengths and the weaknesses of the proposed new distribution method. The proposal assumes that reductions in federal funding should be borne more by the affluent than by the poor.

GAH
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It is proposed to distribute federal block grant monies to school districts in Illinois by means of a "weighted pupil/shared pool" distribution system described herein. This discussion is in four sections. First, we shall describe the conceptual basis of the proposed distribution system. Second, we shall outline the computational steps required by this procedure. Third, we shall outline some of the results of a simulated distribution of funds in Illinois under this procedure. Finally, we shall summarize the strengths and weaknesses of the proposed system. A computer print-out showing the proposed distribution of funds to all Illinois school districts is available by application to the State Board of Education.

I. Conceptual Basis

Although the computational steps required by this procedure, as outlined in the next section, may seem complicated, the conceptual basis of this grant-in-aid is relatively simple. It is also not new. The federal government has used this basic method for many years to distribute grants from Washington to the state capitols. We have merely expanded and elaborated on a system used at the federal level for quite some time. Fundamentally, a "shared pool" system distributes money based upon the proportion of students a district has relative to the population of the entire state. If the system is unweighted, a district having 25% of the student population would get 25% of the available funds, and the system would then be identical with a "flat grant." However, all "shared pool" systems are weighted by some district characteristics, or by some state characteristics, if that system is being used to distribute funds from Washington. For example, the U.S. Office of Education for many years weighted individual

states on the basis of their personal income and then used a shared pool system which distributed more funds to states with low income. When the weighted pupil system is used, a district having 25% of the student population might get 33% of the available funds, if that district possesses characteristics which the state department believes require more funds. The selection of these "district characteristics" is then crucial to the system and determines the resultant distribution of funds. The over 1000 school districts in Illinois have many, many characteristics. While the proposed procedures outlined here are thecretically capable of handling a large number of these district characteristics, the computational procedures do grow more complicated as the set of district characteristics is increased. Also, since this kind of distribution procedure has never been used before in Illinois, it was thought appropriate to select only four district characteristics and to base the proposed distribution of federal block grants upon these four characteristics. We were guided in the selection of these four characteristics by the basic federal statute authorizing the federal block grants. At some later point in time, it might be desirable to expand the number of district characteristics used.

The four district characteristics selected were: (a) one measurement of district wealth, and (b) three measurements of "high cost" students. We propose to distribute federal block grants inversely to the wealth measurement, i.e., the property-poor districts shall receive more than the property-rich districts. We propose to distribute federal block grants directly proportional to the three measures of "high cost" students, i.e., districts with high concentrations of "high cost" students shall receive more than districts with low concentrations of "high cost" students. The rationale for using these district characteristics is as

follows. First, we know, from an abundance of research, that the wealth of a school district is the primary determinate of what that district spends for education. Although both the courts and many school professionals have struggled to achieve a "fiscally neutral" or "wealth neutral" system, e.g., one in which expenditures per pupil were not determined by individual district wealth, this condition has not been achieved in Illinois, or anywhere else in the United States. The research conducted by the Center for the Study of Educational Finance at Illinois State University on behalf of the Illinois School Problems Commission and the Illinois State Board of Education makes it abundantly clear that, in fact, the State of Illinois has been moving away from, not toward, wealth neutrality, for the last several years.[1] It was therefore felt that federal funds, as well as state funds, should be used to try to achieve this "wealth neutrality" goal. Again, this is not a novel thought. Various members of both the U.S. Senate and the U.S. House have expressed the view that the federal government should help the state governments in attaining equity goals within the states. Federal legislation to so assist the states has been introduced into the Congress of the United States, though the legislation has never passed. We believe, therefore, that it is appropriate to use federal funds to help the states avoid legal problems that might surface in a Serrano-type constitutional challenge to the state funding system in Illinois. It is apparent that a federal block grant proposal in New York State makes a similar assumption.[2]

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1. Hickrod, G. Alan, Ramesh B. Chaudhari, and Ben C. Hubbard. Reformation and Counter-reformation in Illinois School Finance: 1973-1981. Center for the Study of Educational Finance, Illinois State University. 1981.

2. Education Weekly, March 24, 1982.

There is also a practical as well as a legal reason for providing more federal funds to districts which are poor in terms of the traditional measure of school district wealth, property valuations per pupil. In property-poor school districts, more than in property-rich school districts, the federal dollars provide that sorely needed flexibility in the school budget for some modicum of experimentation and creativity in the learning process. The property-poor district's budget, more quickly than the property-rich district's budget, becomes "set in concrete" due to the necessity of maintaining a minimum core of activities that must go on if public education in that poor district is to continue at all. Without federal funds, very little "new" can be tried in a poor district. Unless the state is prepared to defend a system in which almost all educational experimentation with new learning techniques takes place only in rich districts, and then "trickles down" to the poor districts, it seems appropriate to send more federal funds to property-poor districts. If it be objected that this is the role of the state general grant-in-aid, and not the federal block grant, it can be quickly shown that the Illinois general grant-in-aid has never done the job, and it seems extremely unlikely, given the present budget crunch on general revenue funds, that it can do the job in the immediate future. The relatively small amount of funds to be distributed by the proposal outlined here cannot also "do the job," but they will at least help.

Another reason for including property valuation in the grant-in-aid is our belief that poor districts should not be cut as much as rich districts in any reduction in federal funding. Inclusion of a wealth factor within the distribution formula insures that the cuts suffered by the poor will be

less than those suffered by the rich. The authors of this proposal believe that the poor districts have gained more from federal funding, on the whole, than have the rich districts. Individual federal programs might have had a different effect, but the overall effect of federal funding has been to work toward equalization of educational opportunity, and we have tried to insure that this will continue under this proposal.

It can be objected that a better measurement of school district wealth is personal income rather than property valuations per pupil. This is a valid objection, and we did experiment with an income measurement along with a property valuation measurement as a specification of school district wealth. However, we elected not to report a procedure which uses school district income for two reasons. First, we still do not have a good current measurement of school district income. It is true that we may be within a few months of having such a measurement, but the need for a tested allocation procedure has shown us that the income variable interacts with the two "high cost" student variables which we also wished to use and that interaction produces complications in the allocation procedure. At some later time it might be appropriate to introduce a second measurement of wealth into the system, but for the present, it seems more useful to stay with the traditional measurement of school district wealth, i.e., property valuation per pupil.

Having decided to distribute more federal block grant funds to property-poor districts, we then turned our attention to what variables might be candidates for the "high cost" student category. One came to mind immediately. Illinois has, for many years, distributed more state general aid funds to districts impacted by poverty. This poverty impaction weighting in the general state aid formula has been restricted by the General

Assembly, however, and in recent years has also been reduced in magnitude. Concomitantly with this reduction in state funds, there are also movements underway to reduce the flow of federal funds through Title I of the Elementary and Secondary Education Act as amended. We know, however, of no evidence that would suggest that it is cheaper to educate students from poverty environments now that it has been in the past. It seems appropriate therefore to distribute more federal block grants to poverty impacted school districts than to those without such impaction. Indeed, the basic legislation establishing the federal block grants requires that those grants include some specification of poverty impaction. It is true that there are many ways to measure "poverty impaction." The one we have selected here may not be the "best," but it is the one available on short notice in Illinois. We elected to use the percentage of Title I eligibles in the district as the specification of "poverty impaction." This is not exactly the same variable as used in the state general aid allocation system. The state general aid system starts out with this same variable, but then greatly restricts the range of that variable with ceilings and other constants. The variable used here is not so restricted. Again, as with regard to the wealth measurement, other specifications of poverty can be added later to the allocation system if that is deemed desirable.

So far we have not broken much new ground. Property valuation per pupil is used in the general purpose state grant-in-aid system, and while the measurement of poverty impaction is not quite the same in the two systems, it is still basically the same variable. We now come, however, to two other district characteristics that play no direct part in the distribution of Illinois general purpose funds. Perhaps they <u>should</u> do so, but

currently they do not. The first is the percentage of minority students. Interestingly we do not find this variable to be as highly correlated with poverty impaction as one might think. The reasons seem fairly simple—there are poverty children who are not black, and there are black children who are not in poverty. The same might be said of Hispanic and other minority groups. We know, however, that the costs associated with educating children from other cultures, and from sub-cultures in the United States, is higher than the costs of educating a child from the main line cultural tradition. In spite of this, there are, again, movements underway in Washington to reduce the flow of federal funds to these high-cost minority children. It therefore seems appropriate to provide greater amounts of federal block grant funds to districts with a high impaction of minority children.

The final district characteristic is based upon concentrations of rural youth and is directed toward increasing the educational opportunities of rural youth. The federal government has historically been concerned with educational opportunities in rural areas. It is true that much of this federal concern has been manifested through the vocational education programs, but once again, these rural vocational programs may be reduced in the future. It therefore seems logical that more federal block funds should flow to those districts with high concentrations of rural youth. There is an additional reason for placing a rural factor in the federal formula in that there is at present no "sparsity" factor in the Illinois general purpose state grant-in-aid formula. Well over half the states do have a sparsity factor in their state grant-in-aid formulas, but Illinois does not. There are several ways to actually measure this variable. The one we elected to use was the number of pupils per square mile, e.g., greater

federal block grants will flow to those districts with fewer students per square mile.

It might be argued that increased costs in rural school districts are largely a function of high transportation costs and that the state currently compensates for this with a state aid transportation categorical grant, albeit rarely a fully funded one. We think, however, that high rural costs are more than a matter of transportation.[3] Rural districts also experience high costs because of very low pupil/teacher ratios, particularly in some high school classes. If advanced mathematics, foreign languages, etc. are to be offered to rural youth, then class size in these academic areas will be inevitably low. Also some kinds of support services, such as library facilities, often have to be expanded to adequately meet the needs of rural youth who are not within easy servicing distance of the library. Finally, any administrator in Illinois who has experienced the large number of school closings due to weather conditions can attest to the additional costs faced by rural schools due to these uncertainties of nature.

Having selected the four variables, or district characteristics, upon which to base the distribution of the federal money, we then faced the question of what weight to allow to each variable. The "conventional way of doing this is by "informed professional judgment." That is, a group of "experts" get together in the state capitol and decide how much money will be attached to each factor. These "weights" are then usually greatly modified in the legislative process. A variation on this method is to conduct a survey and base the establishment of weights on the result of that survey.

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3. The zero-order correlations of sparsity and expenditure per pupil in Illinois are: .31 (elementaries), .23 (high schools) and .34 (units). The corresponding partials with wealth controlled are: .20 (elementaries), .08 (high schools) and .14 (units).

There is nothing particularly wrong with either of these methods except that both result in a manifestation of what someone believes "should" be the weightings. We elected to go a different route. We wished to base our weightings not on what "should" be the weights, but upon what actually "are" the weights. To do this we explored the degree to which each of our four selected variables were able to explain and predict the variation in current expenditures per pupil. A technique known to the statisticians as "linear least squares regression" allowed us to determine the extent to which each of our four variables was associated with higher expenditures per pupil. We then used the results of this conventional statistical procedure to determine the weights given to each variable in the distribution procedure. Details will be given in the next section, but the results of the statistical model we finally selected yielded the following results:

39.27% of the funds will be distributed to districts inversely proportional to property valuation per pupil.

34.24% of the funds will be distributed to districts directly proportional to percentages of minority students.

8.07% of the funds will be distributed to districts directly proportional to percentages of poverty children.

18.42% of the funds will be distributed to districts inversely proportional to numbers of pupils per square mile (sparsity).

A second statistics technique known as "weighted standard scores" was then used to attach these weights to the pupil enrollment of the district. The result then is that districts with larger enrollments get more federal funds, but this is especially true if those larger districts are also low in property valuations, have high percentages of minority children, have high percentages of poverty children, and have low numbers of pupils per square mile. This is then another "per pupil" or enrollment driven grant, and to the extent that a district is suffering severe enrollment loses, their federal block grant will also be reduced with this enrollment drop.

However, there are very few grants in aid in the educational world that are not enrollment driven, and the loss of pupils can be handled by separate "cushioning" procedures just as they are handled in the general grant-in-aid formula. We now turn to the step-by-step exposition of the procedures used to arrive at the distribution of funds. We wish to emphasize, however, that the fundamental weights are derived by what "is" the relationship between the district characteristics selected and expenditure levels and not upon what some individuals or groups feel "ought" to be the relationships.

II. Step-by-Step Computational Procedure

The computational procedure rests upon a regression analysis, a standard score transformation and the proportioning of a pool of available money. It is a seven-step calculation as follows:

Step One: The Regression Analysis

The regression coefficients and the Beta weights of the following model are found through standard least squares regression analysis.

$$E = a + bX_1 + bX_2 + bX_3 + bX_4$$

where:

E = operating expenditure per enrollment count

X_1 = an inverse of property valuation per enrollment count (This is a constant statewide average property valuation per enrollment count by district type [K-12, elem., h.s.] divided by the individual districts property valuation per enrollment. A smaller value will therefore result for a richer district.)

X_2 = the percentage of Title I students in the district (poverty impaction)

X_3 = the percentage of non-white students in the district (minority students)

X_4 = an inverse of pupils per square mile (This is a constant statewide average of pupils per square mile by district type [K-12, elem, h.s.] divided by the individual districts students per square mile. A smaller value will therefore result for densely populated districts and a larger value for sparsely populated districts.)

The coefficient of net determination, R squared, is as follows: for unit districts, .3529; for elementary districts, .3850; and for high school districts, .3326. Since the entire population of districts is used, a significance test is not appropriate.

Step Two: Conversion of Squared Beta Weights to Relative Percentages

While the Beta weights derived from the above statistical analysis can be compared to one another, they are not in a form that can be easily entered into a state distribution formula. We therefore squared all the Beta weights, added them together, and then found the percentage that each is of the total:

$$\Sigma\beta^2 = \beta_1^2 + \beta_2^2 + \beta_3^2 + \beta_4^2 \text{ and } W_1 = \frac{\beta_1^2}{\Sigma\beta^2}$$

Step Three: Combination of Relative Percentages to a Single Set for the Entire Population (merging K-12, elementary, secondary)

Steps one and two result in different relative percentages for unit districts, elementary districts, and high school districts in Illinois. However, different percentages would be difficult to administer. Therefore, a composite weight was developed for all three types of districts on the basis of the share of enrollment count in each type of district.

Step Four: Transformation to Standard Scores

All distribution variables were transformed into standard scores so that they could be added together. The transformation used was:

$$S = \left[\frac{X - \bar{X}}{sd}\right] + 5$$

where:

X = an individual score

$\bar{X}$ = the mean of that distribution

sd = the standard deviation of that distribution

5 = a constant added to eliminate negative numbers

Step Five: Combination to a Single Standard Score

We then computed a total weighted standard score for each district in the state using our previously determined relative percentages of step three. The equation was as follows:

$$S_t = .3927\ S_1 + .0807\ S_2 + .3424\ S_3 + .1842\ S_4$$

This score could itself be used for distributing money. However, it seemed more acceptable, or at least more conventional, to put the distribution in pupil terms since most of the state-to-local grants in the United States are in pupil terms.

Step Six: Weight the Enrollments by the Single Standard Score

The enrollment counts are then weighted by the above total standard score to arrive at a weighted student count for each school district in Illinois. At this point the non-public enrollments were brought into the system.

$$E_w = S_t E$$

where:

E = regular enrollment count, plus non-public
S_t = single standard score
E_w = the weighted enrollment count

Step Seven: Calculate the Grant in Terms of Proportions of Weighted Students

The amount of the grant, to each district in Illinois, is given by the proportion of that district's weighted enrollment count to the entire weighted enrollment count in the state:

$$G = P\left[\frac{Ew}{\Sigma Ew}\right]$$

where:

P = pool of funds available for this purpose
E_w = the weighted enrollment count for a given district
ΣE_w = the total enrollment count for the entire state
G = the grant to the district

III. Impact of the Proposed Block Grant Formula

A. Using public and private school enrollment distribution as the criterion, i.e., a school district with a certain percentage of enrollment will receive a certain percentage of the block grant, the following are the major findings:

1. Among the three types of school districts, unit districts as a group would be favored more than the other two types of districts. Unit districts with 64% of the total enrollment in the state would receive 68% of the total block grant. However, unit districts excluding Chicago would have only 39% of the enrollment and would receive 36% of the block grant. Elementary districts with 24% of enrollment would receive only 21% of the block grant. High school districts with 12% of the enrollment would receive only 11% of the block grant. In other words, if Chicago is not included in the analysis, all three types of school districts would receive a percentage of the block grant lower than the percentage of the state total enrollment.

2. Among the four types of communities served by school districts,[4] the central cities would be favored more than other types of communities. The twelve school districts serving the central cities accounting for 33% of the state total enrollment would receive about 41% of the block grant. School districts serving other types of communities would receive a lower percentage of the block grant than their percentage of the enrollment: suburban districts with 41% of enrollment receiving 36% of the block grant; independent city districts with 11% enrollment receiving 10% of the block grant; rural districts with 16% of enrollment receiving 14% of the block grant.

4. The four community types are defined in Appendix A

B. Using the distribution of Title IV-B funds for 1980-81 as the criterion, i.e., districts with a certain percentage of Title IV-B funds should receive a similar percentage of the block grant, the major findings are:

1. When the proposed amount of block grant is compared with the total IV-B funds for individual school districts, it is found that no districts would receive less block grant than IV-B funds they received in 180-81. It is anticipated that every school district would receive a larger amount of the block grant than IV-B funds, because the totalamount of the block grant is much higher than the total IV-B funds.
2. Seventy-nine percent of school district would receive an amount of the block grant at least twice as high as the amount of IV-B funds they received in 1980-81.
3. The average amount of the block grant per enrollment (public and private) would be $7.53. The amount varies from one district to another even within the same district type. For example, the minimum amount of the block grant per enrollment among elementary school districts would be $5.51, the maximum would be $11.92. For high school districts, the minimum would be $5.45 and the maximum $10.24. The minimum block grant per enrollment among unit districts would be $5.45 and the maximum would be $14.50.
4. Among three types of school districts, only elementary districts would receive a lower percentage (one percent lower) of the block grant than the percentage of IV-B funds they received in 1980-81. High school districts would receive almost the same percentages as they did for IV-B funds, 11%. Unit districts would receive one percent higher than their 1980-81 IV-B funds, 68% vs. 67%.

5. Among the four types of communities, only central cities would receive a higher percentage of the block grant, in comparison with the percentage of IV-B funds they received in 1980-81, 40.75% vs. 35.48%. The other three types of communities would receive a lower percentage of the block grant than their percentages of IV-B funds: 36.22% vs. 40.28% for suburban communities, 9.51% vs. 9.82% for independent cities, and 13.52% vs. 14.42% for rural communities.

Table 1: Percentage Distribution of the Block Grants by District Type

	Elementary	H.S.	Unit
1980-81 Enrollment (public and private)	23.80%	12.24%	63.96%
1980-81 IV-B Grants	22.38%	10.77%	66.86%
1982-83 Block Grants: ISU Formula	21.13%	10.66%	68.22%

Table 2: Percentage Distribution of the Block Grants by District Type

	Central City	Suburb	Independent City	Rural
1980-81 Enrollment (public and private)	33.08%	40.73%	10.74%	15.54%
1980-81 IV-B Grants	35.48%	40.28%	9.82%	14.42%
1982-83 Block Grants ISU Formula	40.75%	36.22%	9.51%	13.52%

Table 3: Distribution of IV-B and Block Grants
Per Enrollment By District Type

	1980-81 IV-B Grant	Block Grant Formula
Elementary		
Minimum	$ .35	$ 5.51
Maximum	6.34	11.92
Mean	3.35	6.68
High School		
Minimum	.35	5.45
Maximum	5.86	10.24
Mean	3.14	6.55
Unit		
Minimum	2.56	5.45
Maximum	6.50	14.50
Mean	3.73	8.03

Table 4: Distribution of IV-B and Block Grants
Per Enrollment by Community Type

	1980-81 IV-B Grant	Block Grant Formula
Central City		
Minimum	$ 2.79	$ 6.08
Maximum	5.99	14.50
Mean	3.83	9.30
Suburb		
Minimum	.35	5.57
Maximum	6.34	13.11
Mean	3.53	6.69
Independent City		
Minimum	2.60	5.45
Maximum	5.99	10.33
Mean	3.26	6.67
Rural		
Minimum	.35	5.45
Maximum	6.50	11.92
Mean	3.31	6.55

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IV. Strengths and Weaknesses of the Proposal

Grant-in-aid systems, like all other institutional arrangements created by the mind of men, are imperfect. There are at least four strengths and four weaknesses that ought to be highlighted relative to this proposal. Some, though not all, of these weaknesses may be addressed by further refinements in the system outlined herein.

The first strength is that this system is very much in the spirit of providing a "safety net" for the "truly needy". The variables were selected so that poor districts would take less of a cut in federal funds than the rich districts. This was deliberate. A judgment was made that reductions in funding at the federal level should be borne more by the affluent than by the poor. Second, while the system is assuredly not value free (we know of no school finance distribution system that is), at least the determination of the weighting between the four factors used to distribute the money is free of a priori judgment. The weights merely depend upon the relative predictive power of those four variables concerning expenditure per pupil. The value judgment lies in the selection of the variables to enter the regression equation in the first place. Third, the system is relatively open-ended and flexible. For example, if special education and vocational money are "blocked" by actions at the federal level in the future, these variables can also be added to the regression model. Fourth, the definition of "available pool of money" is also flexible. For example, it might be thought desirable to distribute, by a different formula, funds for programs for gifted children. If that was the case then the gifted children program money could be excluded from the "available pool" and passed back to the districts by a different grant-in-aid system. We did experiment with a gifted child variable, but we

found it had very little predictive power relative to expenditure per pupil, and thus would not have much effect on the distribution of money using this system.

There are also these weaknesses to the system. First, different regression models will result in different weights, and therefore different patterns in the distribution of monies. For example, we have experimented with the introduction of an income factor into the regression models and we know that the introduction of this factor into the regression model will change the weights. There might be some erroneous belief on the part of the general public, or even among professional educators, that these weights are somehow "graven in stone". Nothing could be further from the truth. The weights not only will change as new variables are entered into the regression model, they also may well change through time, although there is insufficient empirical evidence to form any conclusions on this at the moment.

Second, the chronic Illinois illness of having three types of school districts: K-12, elementary, and secondary, complicates this proposal as it does all other matters of school finance in the state. Step three in the computational procedure is assuredly more of a matter of administrative convenience than it is a matter of sound logical reasoning. There is, parenthetically, a different way to handle the matter of arriving at only a single set of weights, and not different sets of weights for K-12, high schools and elementaries. A system of geographically combining elementaries into high schools so that the entire system of Illinois schools is treated <u>as if</u> it were unit districts has recently been created by a researcher at the Center for the Study of Educational Finance. However, the procedure is still experimental, and we did not try to implement it in this proposal.

Third, the proposed distribution of money is bound to depart significantly from the distribution of federal money before this block grant was created. This is true for a number of reasons but among them would be that what is being proposed here is an entitlement grant-in-aid and not a competitive grant-in-aid. Some of the programs being thrown into the new block grant were on a competitive basis and thus not all districts received the grants, and they did not consistently receive them from year to year. We are proposing an entitlement system because it seems highly unlikely that the State Board of Education would have the personnel to administer an elaborate competitive system. This is especially true at a time when the State Board is in the process of reducing its staff in Springfield. Also, there are serious equity problems in competitive systems. In many of those systems it is the richer and larger schools that get the grants, and not the poorer and smaller schools. However, if the proposed distribution of money differs too greatly from the distribution of funds prior to the block grant, then it may be necessary to phase in the method described here over a period of three years. We certainly understand the necessity of alerting local superintendents to major changes in funding as far in advance as possible.

There is a further consideration on this third point. Entitlement programs usually do little to promote innovation and creativity in local school districts. The interdistrict competitive grant, while it does generate some equity problems, also promotes change and innovation at the local level. All entitlement grants, no matter what the "formula" would have this limitation. The public sector is usually accused of having too little "competition" and the promoters of block grants are usually strong defenders of the value of "competition." Ironically, the block grant reduces competition between

districts while it does probably increase competition within districts. We therefore propose that at least a small competitive program be retained, so that some amount of interdistrict competition will remain within the system. This may place a strain on the reduced manpower in the state department to administer such a competitive program, but we feel the importance of promoting innovation and creativity at the local level with federal funds is sufficiently important that this strain be endured. If up to 20% of the total funds are used for this purpose then the final breakdown might be: 20% for state agency support, 20% for the competitive program, 60% to be distributed by the proposed entitlement formula.

Regretably, the interpretation of the federal statute we have received from Washington suggests that a competitive program can only be financed from the 20% agency funds and not from the 80% formula funds. We, therefore, propose that the competitive program not be implemented until and if the statute can be amended so that the competitive program can be implemented within the 80% portion of the grant. In our judgment the importance of educational innovation and creativity far outweighs the burden of paperwork and regulation inherent in competitive programs. Reduction of regulation and paperwork is surely a desirable goal, but to throw out what little competition there is in the public sector in order to accomplish this goal makes little sense to us.[5]

Fourth, not everyone will accept the initial judgment that the poor districts should be treated differently than the wealthy districts. There will therefore be those who will wish to opt for a sinple flat grant distribution of the new federal block grant. A flat grant distribution does exactly that, e.g., it makes no distinctions between rich and poor, needy

5. The authors are indebted to John Augenblick of the Education Finance Center, Education Commission of the States, Denver, Colorado, for forcefully drawing this to our attention.

versus less needy, high cost versus low cost, etc., etc. Flat grants do have the attractiveness of simplicity. However, flat grant distributions rarely, if ever, get the money to where it is needed. Simple distribution systems rest on simple value assumptions, e.g., everyone is to be treated alike. That has a strong eqalitarian appeal. However, the equal treatment of unequals is seldom a very fair way of proceeding. Complex distribution systems, by contrast, rest on complex assumptions, e.g, students and districts which are not alike should be treated differently. The upshot of all this is that the more we try to "do" within any given distribution system, the more complicated it becomes. We did assume in this proposal that even though the total amount of money to be distributed was not large, we should elect for the more complicated system. With fewer federal dollars we need to use those reduced dollars as wisely as possible. A flat grant system is probably neither wise nor equitable, perhaps it is not even efficient, it is just simple.

Federal interpretation of the basic legislation keeps shifting, but it is probably safe to say that a simple flat grant will not be held to be consistant with the basic statute. However, a simple weighted student grant will be held to be consistant, as long as the weighting is related to "high cost students." Thus, the so-called "80/20" approach, which would distribute 80% of the formula money on the basis of the enrollment count and 20% on the basis of the Title I count would be consistant with the statute. The "80/20" approach is a weighted student approach where there is but one weighting, e.g., one for poverty students. This approach differs from the one proposed herein in two important respects: (a) There are four weights in the system described herein, rather than a single weight, and (b) the weights are empirically determined on the basis of the correlation between

district characteristics and costs. The weighting inherent in the "80/20" split is derived from a survey sent to local administrators requesting what they thought ought to be the basis of the block grant distribution. The "80/20" proposal has the advantage of simplicity, and the disadvantage of taking into consideration only one dimension of high student costs. The bottom line is probably this: a simple allocation system based on arbitrary weightings, or a complex allocation system based upon weightings derived from empirical relations. Like most educational matters, arguments can be made for both approaches.

One important consideration needs to be added. Although the monies are "earned" by virtue of the four school district characteristics specified in the regression model, this is still a block grant to that district. We think it would be a violation of the spirit of the federal legislation, if not the letter of that legislation, to insist that the funds must be spent in the district according to the weights in the regression model. For example, if a given district wanted to use most of their federal block grant money for a gifted child program, we see nothing in law or regulation to prevent them from so doing even though the percentage of gifted children is not in the regression equation. The final decision as to how to use federal block grant monies once they arrive in the district, under a block grant philosophy, rests with the local school board. Some will consider this a weakness of the proposal, but we see no way to remedy this weakness without abandoning the whole theory of block grants. If the money were to be required to be spent in the districts in the same proportion to the weights in the regression model, then the block grant disappears, and what one has in reality is four categorical grants.

Finally, the senior authors of the proposal would like to add a personal disclaimer. Neither of us is a strong proponent of current block grant ideology. To the contrary, we feel the notion may well create more problems than it solves. However, the request to us from the Illinois State Board of Education was to propose a grant-in-aid formula for the distribution of federal block grant monies in keeping with the current federal legislation and regulations. This we have done. It must be admitted, however, that the task has required us to re-think many of our assumptions about grant-in-aid systems in general, and that may have longer beneficial effects. For example, variations of the system outlined in this paper could also be used in the distribution, not of federal funds, but of state general purpose grants-in-aid. We hope to explore that possibility in later studies.

APPENDIX A

Definitions of Community Types

Illinois school districts were classified into the following four categories on the basis of the percentage of the school district population residing in "urban" areas as defined in the 1970 Census: Central City, Suburb, Independent City, and Rural.

1. Central City—a school district serving the central city or "twin cities" of a standard metropolitan statistical area (SMSA) as defined in the 1970 census.

2. Suburb—a school district within an SMSA having more than 50 percent of its population living in "urban" areas.

3. Independent City—a district outside an SMSA, with more than 50 percent of its population living in "urban" areas, such as Quincy School District 172.

4. Rural—a district with less than 50 percent of its population living in "urban" areas. A rural school district may also be located in an SMSA, such as Riverton School District in the Springfield SMSA.